



UNITED STATES PATENT AND TRADEMARK OFFICE

2
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,767	05/27/2004	Hung-Lieh Hu	13292-US-PA	3766

31561 7590 12/06/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER

GARCIA JR, RENE

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,767

Applicant(s)

HU ET AL.

Examiner

Rene Garcia, Jr.

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 & 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Maura (US 6,471,324).

Maura discloses the following claimed limitations:

*regarding claim 1, printhead controller/**control circuit**/ (col. 1, line 59; col. 4, line 66-67; fig. 11, 12) implemented within a printhead/**IJH**/ (col.1, lines 53-65) comprising:

*circuit (fig. 11, 12; col. 4, lines 66-67), for receiving an address signal/**control signals**/ (col. 6, lines 8-32; block enable signals (BE0 to BE3) are control signals that act as address signal to determine which block of heaters to drive col. 6, lines 22-28, fig. 12 & 14) and a selection signal/**heat enable signal, HE**/ (fig. 12; col. 6, lines 29-33), said circuit including a plurality of inverters/**INVs, 333 & 334**/ (fig. 12; col. 6, lines 29-33) connected in series, and outputting a switching signal (col. 7, lines 1-6) corresponding to said selection signal and said address signal (examiner has read the limitations to recite that circuit outputs a switching signal with regards to selection signal and address signal , therefore the outputs of NAND circuits 321 to 324 is the switching signal used to drive necessary heater(s), limitations do not specifically establish a relation between selection signal, address signal and inverter – only that the circuit has the components and utilizes them to output switching signal)

Art Unit: 2853

*ink jetting circuit/**level converter, LVC 350/**, for receiving said switching signal and determining whether or not to jet out ink based on said switching signal (Fig. 12; col. 7, lines 7-20; Image Data (IDATA) also is input to NAND Circuits 321-324 to determine firing of heaters)

*regarding claim 2, address signal/**control signal/** is a working driving voltage of said circuit (col. 6, lines 8-10)

*regarding claim 4, each of said inverters includes a FET (known that inverters consist of a FET e.g. MOSFET or JFET)

Response to Arguments

3. Applicant's arguments with respect to claims 1, 2 and 4-7 have been considered but are moot in view of the new ground(s) of rejection. Maura (US 6,471,324) teaches a controller located on a printhead and utilizing inverters, selection signal, and address signals to determining firing of individual jet/nozzles/.

4. In response to applicant's arguments, the recitation "implemented within a printhead" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Allowable Subject Matter

5. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The primary reason for indicating allowable subject matter of claims 5-7 is the inclusion of the limitations of a printhead controller including circuit with a first resistor, having a first terminal for receiving said address signal; a first FET, having a first terminal being coupled to a second terminal of said first resistor and outputting an inverted signal, a second terminal for receiving said selection signal, and a third terminal being coupled to a ground; a second resistor, having a first terminal for receiving said address signal; and a second FET, having a first terminal being coupled to a second terminal of said second resistor and outputting said switching signal, a second terminal for receiving said inverted signal, and a third terminal being coupled to said ground. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2853

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication with the USPTO

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Garcia, Jr. whose telephone number is (571) 272-5980. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rene Garcia Jr

Rene Garcia Jr 11/06

MSH 12/1/06
MANISH S. SHAH
PRIMARY EXAMINER